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September 21, 2005

David H. Meyer
Acting Deputy Director
Office of Electricity Delivery and
Energy Reliability
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Director Meyer:

Thank you for providing PacifiCorp and other electric utilities the opportunity to submit comments as part of the Department of Energy's study on economic dispatch pursuant to Section 1234 of the Energy Policy Act of 2005.

PacifiCorp provides electric service to approximately 1.6 million retail customers located in parts of California, Idaho, Oregon, Utah, Washington and Wyoming. As a vertically-integrated utility, our retail service is regulated by the utility commissions of the six states that we serve. These commissions act to ensure that our retail customers receive reliable and reasonably priced electricity.

During Congress' consideration of the Energy Policy Act several members expressed concern about Federal involvement in resource dispatch issues, primarily because the state utility commissions have traditionally overseen this activity. In fact, Section 1234 was added to the legislation because of opposition to one proposal that would have required FERC to implement a particular economic dispatch scheme, and another proposal that would have established a national model standard for economic dispatch. PacifiCorp believes that, given the diversity of utility structures across the geographic regions, issues involving the dispatch of generation resources are more appropriately addressed by state regulators and not the Federal government.

With this in mind, the following are PacifiCorp's responses to the questions contained in your September 1, 2005 letter to David Nevius, NERC's Executive Vice President:

Question 1. What are the procedures now used in your region for economic dispatch? Who is performing the dispatch (a utility, an ISO or RTO, or other) and over how large an area (geographic scope, MW load, MW generation resources, number of retail customers within the dispatch area)?

PacifiCorp currently dispatches its diverse system portfolio (owned generation, generation under contract and interchange transactions) of coal-fired, natural gas-fired, hydro and contracted resources at the lowest available cost for our customers subject to constraints such as control area boundaries, transmission limitations, reliability concerns, fuel constraints, and certain business procedures, such as credit agreements and risk on physical delivery. Although PacifiCorp constantly reviews and, as appropriate, modifies its economic dispatch procedures, economic dispatch generally follows the following guidelines:

- Coal-fired generation resources are normally dispatched as simple options with the dispatch cost consisting of the fuel cost, environmental cost and variable operating and maintenance costs. In addition, several of these resources are occasionally used to supply operating reserves (contingency and regulating) for the control areas.
- Natural gas-fired generation without long-term fuel contracts are normally dispatched as a spark spread option inclusive of variable operating and maintenance costs and startup costs. The decision to purchase natural gas and obtain electricity length is made in the day-ahead market and again in the hour-ahead market. In addition, several of these resources are routinely used to supply operating reserves (contingency and regulating) for the control areas.
- Hydro generation resources with storage capability are normally dispatched as swing options based on the opportunity cost of dispatching in some other time period. In addition, several of these resources are routinely used to supply operating reserves (contingency and regulating) for the control areas.
- Contractual resources are dispatched either as simple, spark spread, wing, or compound options, depending on the terms of the agreements.

PacifiCorp has two control areas – PacifiCorp East and PacifiCorp West. The eastern control area covers PacifiCorp, retail service territories of Deseret G&T, UAMPS and UMPA, and serves other transmission customers located in Wyoming, Utah and Idaho, with a summer system peak of 6,792 MW. The western control area covers PacifiCorp and the retail service territory of Clark County PUD, and serves other transmission customers located in Oregon, Washington and California, with a winter system peak of 6,018 MW. PacifiCorp dispatches resources in these control areas and has procedures to dispatch its system portfolio. PacifiCorp does not economically dispatch resources other than those in its system portfolio.

Question 2. Is the Act's definition of economic dispatch appropriate? Over what geographic scale or area should economic dispatch be practiced? Besides cost and reliability, are there any other factors or considerations that should be considered in economic dispatch, and why?

Section 1234 defines "economic dispatch" as "the operation of generation facilities to produce energy at the lowest cost to reliably serve customers, recognizing any operational limits of generation and transmission facilities." In general, PacifiCorp agrees with this definition. However, we believe the term "operation" should be qualified as "real-time operation" and that short-term marginal costs should be the appropriate measure of lowest cost in real-time operation.

PacifiCorp understands that economic dispatch is optimized when it is coordinated over as large an area as possible, with the participation of as many resource options as possible, given transmission constraints. PacifiCorp and several other utilities in our region have proposed creating a regional entity – Grid West – that would provide a number of benefits, including the consolidation of certain utility control areas.

In addition, "operational limits of generation and transmission…" implies physical limitations. However, several other factors need to be considered, including credit concerns, environmental considerations and fuel or non-power constraints, such as the competing uses of water on the operation of hydro facilities. If hydro facilities are required to be dispatched based on what some believe to be true "economic dispatch," water won't be available to generate power at times most beneficial to consumers and would be dispatched in contravention of non-power constraints. This concern is especially strong in the Northwestern United States, where there is a significant amount of hydro generating capacity and corresponding non-power constraints on the use of that hydro generation.

Question 3. How do economic dispatch procedures differ for different classes of generation, including utility-owned versus non-utility generation? Do actual operational practices differ from the formal procedures required under tariff or federal or state rules, or from the economic dispatch definition above? If there is a difference, please indicate what the difference is, how often this occurs, and its impacts upon non-utility generation and upon retail electricity users. If you have specific analyses or studies that document your position, please provide them.

PacifiCorp's system dispatch is based upon a "resource stack" compiled based on the availability of marginal cost or opportunity cost data from all available resources. Once the stack is compiled, the decision to dispatch both utility and non-utility resources under

PacifiCorp's control is entirely neutral. The key is for the generation dispatcher to have both price information and control over the resources, including non-utility generation.

PacifiCorp's operational practices are consistent with the procedures required by Federal and state tariffs and rules, as well as our interpretation of the Energy Policy Act's definition of "economic dispatch."

Question 4. What changes in economic dispatch procedures would lead to more non-utility generator dispatch? If you think that changes are needed to current economic dispatch procedures in your area to better enable economic dispatch participation by non-utility generators, please explain the changes you recommend.

As noted above, PacifiCorp believes that economic dispatch will provide the greatest benefits to consumers when the coordinated area is as large as practicable and when economic dispatch is transparent to all market participants. For example, PacifiCorp supports the creation of Grid West, which would establish an independent operator of a consolidated control area with a voluntary security-constrained economic dispatch that would substantially improve the economic dispatch procedures for participating areas of the Pacific Northwest and Intermountain West.

Question 5. If economic dispatch causes greater dispatch and use of non-utility generation, what effects might this have – on the grid, on the mix of energy and capacity available to retail customers, to energy prices and costs, to environmental emissions, or other impacts? How would this affect retail customers in particular states or nationwide? If you have specific analyses to support your position, please provide them to us.

An answer to these questions depends on a number of variables including location relative to control area boundaries, transmission limitations, reliability concerns, and certain business procedures, such as credit agreements and risk on physical delivery. Furthermore, the attributes of the specific non-utility generation will affect any analysis.

For example, depending on the creditworthiness of the non-utility generator owner, credit risk could be an issue. That risk, when absorbed by the utility, could increase overall operational costs. Additionally, more reliance on natural gas-fired generation could increase the pressure on natural gas prices and supplies, both raising power prices and endangering reliability. A larger control area footprint would enable a more diverse supply of resources (renewables, coal and gas), optimizing generation and transmission loading, but this could lead to transmission issues. Consequently, numerous components must be included in a cost analysis.

Question 6. Could there be any implication for grid reliability – positive or negative – from greater use of economic dispatch? If so, how should economic dispatch be modified or enhanced to protect reliability?

PacifiCorp believes that reliability must be the overriding concern in the operation of an electric utility system. To the extent that generation that might not otherwise be available is made available for economic dispatch, reliability would be enhanced. Of course, economic dispatch must be facilitated subject to the constraints of reliability criteria, both standards that exist today and requirements that will be established by the Electric Reliability Organization to be created pursuant to the Energy Policy Act of 2005. For that reason, economic dispatch is secondary to reliability dispatch.

We agree with the comments filed by the Edison Electric Institute suggesting that non-utility generators must enter into a contractual commitment to transfer control to a utility to ensure that reliability is not impaired and non-utility generation is available when needed to meet the goals of economic dispatch. PacifiCorp and all other utilities with native load customers must be confident that they will be able to call upon a particular resource, with accurate and transparent generator data and pricing information, if needed to maintain reliability standards.

Thank you again for the opportunity to provide comments. We would be glad to provide further thoughts if the Department deems that helpful.

Sincerely,

Andy MacRitchie
Executive Vice President,
Strategy, Regulation and External Affairs
PacifiCorp

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